

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1-17. (Canceled).

18. (Currently Amended) A method for operating at least two interconnected control units, the method comprising:

accessing sensor data with the control units, each of the control units having a housing with a plurality of inputs for connecting to a plurality of sensors and processors, wherein one of the control units is a master control unit and the remaining control unit is a slave control unit that receives synchronization information from the master unit; accessing sensor data and

executing in each case at least one computer software program for controlling operational sequences on all the control units, in a vehicle; and

using the control units to exchange synchronization information continuously synchronizing the control units by continuously transmitting synchronization information between the control units;

wherein the control units execute the same computer software program time-synchronously using a settable time lag.

19. (Previously Presented) The method of claim 18, wherein the same sensor data are available in the control units.

20. (Currently Amended) The method of claim 18, wherein, in each case, the control units receive only one portion of all sensor data from the sensors, and the control units exchange sensor data, so that all sensor data are available in each control unit.

21. (Currently Amended) The method of claim 18, wherein, in the individual control units, the system holds off on executing the computer software programs time-synchronously while accessing the sensor data until all up-to-date sensor data are available in each control unit.

22. (Previously Presented) The method of claim 18, wherein the time lag is adjusted as a function of the time duration required for exchanging the sensor data among the control units.

23. (Previously Presented) The method of claim 18, wherein the time lag is adjusted during operation of the control units.

24. (Previously Presented) The method of claim 22, wherein the time lag is regulated as a function of the time duration required for exchanging the sensor data among the control units.

25. (Previously Presented) The method of claim 22, wherein the time lag is adjusted or regulated in a damped manner as a function of the time duration required for exchanging the sensor data among the control units.

26. (Previously Presented) The method of claim 18, wherein the control units are synchronized solely by exchanging useful data via the data transmission media, without transmitting separate synchronization information.

27. (Currently Amended) A computer system comprising:

at least two continuously interconnected control units, each of the control units having a housing with a plurality of inputs for connecting to a plurality of sensors and processors, wherein one of the control units is a master control unit and the remaining control unit is a slave control unit that receives synchronization information from the master unit; and

a data transmission medium that connects the control units to continuously exchange synchronization information between the control units,

wherein the control units access sensor data and execute in each case at least one computer software program for controlling operational sequences, in a vehicle, and

wherein the control units execute the same computer program time-synchronously using a time lag that is adjustable by setting arrangement.

28. (Currently Amended) The computer system of claim 27, wherein ~~one of the control units is defined as a master control unit, and the remaining control units are defined as slave control units; the master control unit transmitting transmits synchronization information to the slave control units.~~

29. (Currently Amended) The computer system of claim 28, wherein once the ~~computer software~~ system is booted up, the slave control units are automatically synchronized to the time

base of the master control unit.

30. (Previously Presented) The computer system of claim 27, wherein:

only one portion of the sensors is connected in each case to the control units, and in each case, the control units receive only one portion of all sensor data, and the control units exchange sensor data via the data transmission medium, so that all sensor data are available in each of the control units.

31. (Currently Amended) The computer system of claim 27, wherein the individual control units include an arrangement for holding off on executing the ~~computer~~ software programs time-synchronously while accessing the sensor data until all up-to-date sensor data are available in each of the control units.

32. (Previously Presented) The computer system of claim 27, wherein each of the control units is subdivided into a hardware level, a hardware driver level, and an application software level, the computer program being for controlling the operational sequences running in the application software level, and the sensor data being transmitted independently of the application software level in the hardware driver level.

33. (Previously Presented) The computer system of claim 30, wherein the sensors are assigned to the control units and are linked to the control units assigned to them respectively so that, during operation of the computer system, a substantially uniform usage results on the average over time on the data transmission medium in both transmission directions.

34. (Previously Presented) The computer system of claim 27, wherein the data are transmitted via the data transmission medium in accordance with the CAN (controller area network) protocol.